Journal of Pharmacokinetics and Biopharmaceutics

Vol. 23, No. 1 February 1995

CONTENTS

NOTE

A General Conceptual Model for Non-Steady State Pharmacokinetic/Pharmacodynamic Data 1
Davide Verotta and Lewis B. Sheiner

RESPONSE

Convergence of Direct and Indirect Pharmacodynamic Response Models 5
William J. Jusko, Hui C. Ko, and William F. Ebling

REJOINDER 9
Davide Verotta and Lewis B. Sheiner

Oral Absorption of CGS-20625, an Insoluble Drug, in Dogs and Man 11
Yulia Hirschberg, Rebecca L. Oberle, Maria Ortiz, Henry Lau, and Maria Markowska

Population Pharmacokinetics of Teicoplanin in Patients with Endocarditis 25
Dale K. Yu, Earl Nordbrock, Sam J. Hutcheson, Eric W. Lewis, Will Sullivan, Vijay O. Bhargava, and Scott J. Weir

Determination of Protein Binding by *in vitro* Charcoal Adsorption 41
Jinhua Yuan, Dai Chang Yang, Jill Birkmeier, and James Stolzenbach

Group Sequential Extensions of a Standard Bioequivalence Testing Procedure 57
A. Lawrence Gould

Fitting Nonlinear Regression Models with Correlated Errors to Individual Pharmacodynamic Data Using SAS Software 87
Ralf Bender and Lutz Heinemann

Bayesian Design Criteria: Computation, Comparison, and Application to a Pharmacokinetic and a Pharmacodynamic Model 101
Yann Merlé and France Mentré

AUTHOR INDEX TO VOLUME 22 127

SUBJECT INDEX TO VOLUME 22 129

Journal of Pharmacokinetics and Biopharmaceutics

Vol. 23, No. 2 **April 1995**

CONTENTS

Prediction of Sleep Disorders Induced by β-Adrenergic Receptor Blocking Agents Based on Receptor Occupancy 131
Yasuhiko Yamada, Fuminori Shibuya, Jun Hamada, Yasufumi Sawada, and Tatsuji Iga

Influence of the Rate of Intravenous Administration of Eliprodil (SL 82.0715), a New Anti-Ischaemic Agent, on its Distribution in Rat Plasma and Tissues 147
Danielle Garrigou-Gadenne, Jean-Paul Thenot, and Paolo L. Morselli

Third-Generation Model for Corticosteroid Pharmacodynamics: Roles of Glucocorticoid Receptor mRna and Tyrosine Aminotransferase mRna in Rat Liver 163
Zhi-Xin Xu, Yu-Nien Sun, Debra C. DuBois, Richard R. Almon, and William J. Jusko

New Hepatocellular Diffusion Model for Analysis of Hepatobiliary Transport Processes of Drugs 183
Hiroyuki Yasui, Kiyoshi Yamaoka, and Terumichi Nakagawa

Simulation for Population Analysis of Michaelis-Menten Elimination Kinetics 205
Yukiya Hashimoto, Toshiko Koue, Yuko Otsuki, Masato Yasuhara, Ryohei Hori, and Ken-ichi Inui

PERSPECTIVES IN PHARMACOKINETICS

Physiologically Based Pharmacokinetic Modeling as a Tool for Drug Development 217
Steven B. Charnick, Ryosei Kawai, Jerry R. Nedelman, Michel Lemaire, Werner Niederberger, and Hitoshi Sato

Commentary on "Physiologically Based Pharmacokinetic Modeling as a Tool for Drug Development" 231
Thomas M. Ludden, William R. Gillespie, and William J. Bachman

REVIEWERS 1991–1994 237

ANNOUNCEMENTS 241

Journal of Pharmacokinetics and Biopharmaceutics

Vol. 23, No. 3 June 1995

CONTENTS

Concentration-Dependent Metabolism of Diazepam in Mouse Liver 243
Marie V. St-Pierre and K. Sandy Pang

Celiprolol Double-Peak Occurence and Gastric Motility: Nonlinear Mixed Effects Modeling of Bioavailability Data Obtained in Dogs 267
Elke Lipke, I-Der Lee, Peter Langguth, Hildegard Spahn-Langguth, Ernst Mutschler, and Gordon L. Amidon

Disposition of Quinapril and Qinaprilat in the Isolated Perfused Rat Kidney 287
Alan R. Kugler, Stephen C. Olson, and David E. Smith

A Semicompartmental Modeling Approach for Pharmacodynamic Data Assessment 307
Kenneth G. Kowalski and Aziz Karim

We May Not Measure the Correct Intestinal Wall Permeability Coefficient of Drugs: Alternative Absorptive Clearance Concept 323
Win L. Chiou

Permeability and Clearance Views of Drug Absorption: A Commentary 333
Hans Lennernäs, John R. Crison, and Gordon L. Amidon

The Author Replies to Lennernäs *et al.* 339
Win L. Chiou

ANNOUNCEMENTS 345

Journal of Pharmacokinetics and Biopharmaceutics

Vol. 23, No. 4 August 1995

CONTENTS

An Understanding of Flow- and Diffusion-Limited vs. Carrier-Mediated Hepatic Transport: A Simulation Study 347
Wan Ping Geng, Karen Poon, and K. Sandy Pang

Stereoselective Binding Properties of Naproxen Glucuronide Diastereomers to Proteins 379
Alfred Bischer, Parnian Zia-Amirhosseini, Masahiro Iwaki, Antony F. McDonagh, and Leslie Z. Benet

In Vivo Pharmacokinetic Study for the Assessment of Poly-(L-Aspartic Acid) as a Drug Carrier for Colon Specific Drug Delivery 397
Claudia S. Leopold and David R. Friend

Estimation of Population Pharmacokinetics Using the Gibbs Sampler 407
Nicola G. Best, Keith K. C. Tan, Wally R. Gilks, and David J. Spiegelhalter

ERRATUM

Simple Approximate Formulas for Calculating the Time to Clear Drug and the Time to Accumulate Drug When the Plasma Disposition Curve of the Drug is Multiexponential 437
Dennis A. Noe

Comparative Physiological Pharmacokinetics of Fenatyl and Alfenatil in Rats and Humans Based on Parametric Single-Tissue Models 438
Sven Bjorkman, D. Russell Wada, Donald R. Stanski, and William F. Ebling

ANNOUNCEMENTS 439

Journal of Pharmacokinetics and Biopharmaceutics

Vol. 23, No. 5 October 1995

CONTENTS

Discrepancies in Pharmacokinetic Parameter Estimation Between Bolus and Infusion Studies in the Perfused Rat Hindlimb 441
Anne C. Heatherington and Malcolm Rowland

Risk Assessment of Adverse Pulmonary Effects Induced by Adrenaline β-Receptor Antagonists and Rational Drug Dosage Regimen Based on Receptor Occupancy 463
Yasuhiko Yamada, Kyoko Matsuyama, Kiyomi Ito, Yasufumi Sawada, and Tatsuji Iga

Pharmacokinetic Parameter Estimations by Minimum Relative Entropy Method 479
Takashi Amisaki and Shinto Eguchi

A Nonlinear Mixed-Effects Pharmacokinetic Model Comparing Two Formulations of Cyclosporine in Stable Renal Transplant Patients 495
William M. Sallas, Jerry R. Nedelman, Lewis B. Sheiner, John A. Meligeni, and William T. Robinson

Development of Limited Sampling Strategies for Characteristics of a Pharmacokinetic Profile 515
William M. Sallas

Journal of Pharmacokinetics and Biopharmaceutics

Vol. 23, No. 6 December 1995

CONTENTS

A Pharmacokinetic–Pharmacodynamic Model of Tolerance to Morphine Analgesia During Infusion in Rats 531
Danièle M.-C. Ouellet and Gary M. Pollack

Analysis of Animal Pharmacokinetic Data: Performance of the One Point Per Animal Design 551
Ene I. Ette, Andrew W. Kelman, Catherine A. Howie, and Brian Whiting

Lack of Presystemic Metabolism of Nifedipine in the Rabbit 567
Patrick du Souich, Lucie Héroux, Hélène Maurice, Michelle Dépôt, and Gilles Caillé

A Nonparametric Subject-Specific Population Method for Deconvolution: I. Description, Internal Validation, and Real Data Examples 581
Karen E. Fattinger and Davide Verotta

A Nonparametric Subject-Specific Population Method for Deconvolution: II. External Validation 611
Karen E. Fattinger and Davide Verotta

Accuracy of Noncompartmental Pharmacokinetic Parameters Estimated from Bolus Injection and Steady-State Infusion Data 635
Michael Looby and Michael Weiss

Three New Residual Error Models for Population PK/PD Analyses 651
Mats O. Karlsson, Stuart L. Beal, and Lewis B. Sheiner

ANNOUNCEMENTS 673

AUTHOR INDEX TO VOLUME 23 677

SUBJECT INDEX TO VOLUME 23 679